

# Chapter III - Debris Removal, Mobile Homes and Mini-Repair

As noted earlier, two of what later became the three major Susquehanna District missions — debris removal and mobile home site construction — were underway before SED was established. The third, mini-repair, was added on 18 July, the day after SED was formed. The district's involvement in all cases was based on Office of Emergency Preparedness assignments and followed guidelines provided by OEP in its "Federal Disaster Assistance Program Manual for Applicants" (OEP Circular 4000.5C), plus several supplemental announcements. SED's area of responsibility included only work coming under Public Law 91-606, as outlined above in Chapter I.

## DEBRIS REMOVAL

Debris removal, a category of work which included clearing streets and streams and demolishing buildings, was a traditional disaster assignment for the Engineers. After Agnes, trash had accumulated in waves, reflecting the clean-up process. First, homeowners and businessmen threw out water-logged furnishings. That task was no sooner completed than the drying out process caused disaster victims to throw out floor boards, doors and other damaged structural pieces. Even further drying resulted in crumbling walls, another source of street debris.<sup>1</sup> Under these conditions, the Corps' street clean-up operations continued until the end of September when OEP re-assigned the task to local municipalities, with

federal assistance provided if needed. The final SED effort in the Wyoming Valley — dubbed "Operation Clean Sweep" — occurred on 25 September.

Importantly, the overall performance of the debris removal operations depended a great deal on the cooperation of the people as well as the Corps' ability to contract and supervise the work. As Captain Calvin F. Currington, one of the officers who served as assistant area engineer in Elmira, said:

The people with damaged homes were willing to go in, pull out the debris and put it in the street for removal. Their quick response and determination helped make that part of the program a success. They took a willing and constructive attitude and then went ahead and did it.<sup>2</sup>

Collecting the vast quantities of debris left by Agnes presented the problem of where to dispose of it. In major disaster areas such as Wilkes-Barre, Harrisburg and Corning-Elmira, new landfill sites had to be utilized. There were several such sites in the Wilkes-Barre vicinity alone. Some were abandoned strip-mine pits, a fact causing considerable trouble when the Bureau of Mines and the Environmental Protection Agency (EPA) used infrared photography and located spots susceptible to spontaneous combustion.<sup>3</sup> In early August the U.S. Depart-

ment of Interior suggested removing already buried trash in the mine pits as a precautionary measure; but after study, the Corps determined that the landfills had been carefully prepared and opposed such action.<sup>4</sup> The agencies involved resolved their disagreement after a meeting on 5 September. The landfill sites would be monitored by drilling six-inch diameter wells to a depth of 25 feet.

In less populated areas, considerable debris was disposed of through controlled burning. This was the case in Pennsylvania's Schuylkill River valley, where by arrangement with EPA and the Pennsylvania Department of Environ-

mental Resources, debris was burned on several islands in the river.

Closely allied with the Corps of Engineers assignment to clear street debris was the task of demolishing buildings judged beyond economical repair and presenting a threat to public safety. Demolition was permitted only in municipalities where the Corps had already been tasked to remove debris. Local authorities, as well as state and federal officials, attested to the eligibility of the structures involved. Great care had to be taken to be sure owners signed releases approving the action and stating they would not hold the governments involved re-



sponsible for any damages resulting from the operation. Because they operated only under authority of Public Law 91-606, the Corps had to avoid removing buildings condemned as unsafe prior to the disaster or buildings scheduled to be removed as part of urban renewal.

Hoping to speed the process of demolition, OEP in late August permitted the Corps to proceed without prior approval where removal was estimated under \$25,000. Application deadlines for building demolition were twice extended to benefit disaster victims. And following the pattern of other programs, OEP

transferred responsibility for demolition to local communities as of 15 November.

In the hard-hit Wilkes-Barre area, building demolition normally kept a project engineer, four field representatives and a clerk-typist busy full time. Between 25 July and 30 November, the Wilkes-Barre Area Office administered 63 demolition contracts under which 1315 structures were razed. The entire Susquehanna District contracted for the removal of some 1500 private homes and garages at a cost of \$1.2 million.

Tropical Storm Agnes' raging floodwaters not only did great damage on land but, when



they receded, revealed extensive damage to streams and rivers. Banks were undermined, trees uprooted, and bridges washed away. Some streams were literally choked with debris while the floodwaters altered the course of others. Of great concern were hundreds of barrels, some containing dangerous material, swept into the Susquehanna River near Harrisburg and requiring special handling by the Corps. In eastern Pennsylvania, Agnes flushed nearly five million gallons of oil sediment and residue from the settling ponds of a waste oil processing plant into the Schuylkill River. The Environmental Protection Agency gave the Corps of Engineers \$1.6 million to clean it up.

The need to remove refuse from the waterways and to restore them to their pre-flood condition ultimately made stream clearance a major part of the debris removal program. Fear that more heavy rains might only worsen an already devastating situation contributed a sense of urgency, but the bulk of stream clearance work was done in September and October.

In part the delay was due to the more immediate threat presented by other types of debris. General Groves, who found stream clearance the least successful of traditional Corps missions after Agnes, assessed the situation as follows: "We gave it rather low priority. And I guess we probably always will, because the first thing you take care of, you get people under shelter, feeding them, clothing them, taking care of health hazards, and removing the immediate dangers to life and property."<sup>5</sup> From the more restricted point of view of a captain in the Sunbury Area Office, stream clearance was slowed down primarily because a long and complicated form was initially used for securing rights of entry.<sup>6</sup> The outcome, Groves concluded, was that by the time the Engineers got around to stream clearance, very real environmental problems had been generated.

The difficulty of estimating how much work was involved and a lack of equipment initially led the Susquehanna District to award stream clearance contracts on a time and equipment basis. On 15 August, however, District Engineer McElhenny ordered a change to more easily

managed lump sum supply contracting.

Contracts divided rivers and streams into reaches, with contractors instructed to remove and dispose of all debris within a specified area. Instructions given the contractor ordered him to "protect and preserve the natural condition of terrain and vegetation" and enjoined him from polluting the water.<sup>7</sup> Yet OEP generally restrained the Corps from reseeding the surrounding area, a requirement that ultimately proved quite troublesome.

Small streams, particularly in rural areas, presented unique problems. Contractors had to gain access to the damaged area, perhaps by cutting a new road. Permission was required where private property was involved. If the mass of debris to be moved was great, the contractor had no choice but to use large equipment though unwanted damage might result to the surrounding terrain. Time and a shortage of manpower and small equipment were additional factors.

In larger streams and rivers, the magnitude of the operation was usually considerable. A contractor working a 14-mile stretch of the Susquehanna River above Wilkes-Barre used logskidding equipment, a log loader, bulldozers and payloaders and had boats tow cables into the river channel, where they were used for hauling the heaviest pieces of debris to the shoreline.<sup>8</sup> Between 1 and 13 October SED awarded five contracts in the Towanda area totaling \$790,000 for work in the Susquehanna River, three contracts totaling \$105,288 for Bowman Creek, and two contracts totaling \$111,000 for the Towanda Creek.<sup>9</sup>

SED tried to concentrate its efforts on the Susquehanna River and its major tributaries and leave the rest up to local governments. Whether or not the Corps was responsible for actually performing the stream clearance, qualification for such work under Public Law 91-606 had to be determined in advance. This was accomplished by means of the damage survey report, the OEP document required to determine eligibility and estimate damages for all programs under Public Law 91-606. Corps of Engineers area office personnel participated regularly along with state and local officials in making the surveys. Problems developed in this

area due to inadequate acceptance guidelines, misunderstanding of the program among local officials, changing cut-off dates for the program, and lack of experience among the Corps personnel involved.

Eligibility requirements for stream clearance were only broadly delineated by OEP at the outset. Consequently, damage surveyors often included work that was not intended by OEP to fall under the law. OEP clarified its position in August by providing specific examples of eligible and ineligible work, but problems continued. In one instance, for example, SED engineers felt work essential to prevent future flooding, only to have OEP declare it ineligible.<sup>10</sup> At a meeting attempting to overcome controversy surrounding damage surveys, James Lewis, OEP's deputy assistant director for disaster programs, "implied that the [Corps of Engineers] had reflected on the Damage Survey Reports that work which the [Corps of Engineers] wanted done . . . as opposed to the minimum amount of work . . . necessary to satisfy the OEP guideline requirements."<sup>11</sup>

Another challenge was to insure that stream clearance was limited to debris actually caused by Agnes. Lieutenant Colonel Christ Potamos, SED director of emergency operations, addressed this point in instructions given to officials in the Towanda Area Office:

Approach the people and be nice about it. Get a good idea of what was there. Be careful . . . There are many pieces of concrete and large rocks in some of these rivers. The first thing I say is, "That was not caused by Agnes." And if they say it was, I say "Prove it."<sup>12</sup>

In response to the city of Scranton's desire to have the Corps clean, dredge and deepen the Lackawanna River, a damage survey report was made in October 1972. The survey found 800 cubic yards of Agnes-related material but concluded that most of the debris resulted from years of inadequate maintenance.<sup>13</sup> The Susquehanna District then had to explain why it could not do all the work and recommend that

Scranton apply for assistance through other channels.

Additional difficulties stemmed from the damage survey process itself. One SED area office damage survey coordinator noted difficulties in balancing federal, state and local views while determining damage assessments.<sup>14</sup> The Sunbury Area Office lacked so simple a thing as adequate quad maps, a circumstance that later required redoing several inaccurate surveys.

In many instances, local officials failed to understand that damage survey estimates and scopes of work were subject to OEP review and might subsequently be reduced. This created controversy in instances where local communities completed stream clearance on their own and then sought reimbursement from OEP under project application provisions of Public Law 91-606. Unfortunately it was usually the case that the community had first seen the damage survey report, thought it final, and done the work, all the while assuming that everything listed on the original survey would be approved by OEP. Many communities found out what was non-reimbursable after the work was completed or well underway.

The greatest dispute involving stream clearance arose in Tioga County, Pa., which fell under the jurisdiction of the Towanda Area Office. Local citizens and county commissioners claimed that Corps inspectors had originally "indicated that bulldozer type clearing was eligible and would be reimbursed." These communities had gone ahead with work that sometimes resulted in "trapezoidal ditches rather than free flowing streams."<sup>15</sup>

In response, OEP ordered the Engineers to conduct resurveys during September. SED's engineering branch organized the project. Some 200 resurveys were conducted within three weeks. A few surveys continued to authorize dozer work, though inspectors were generally less liberal this time than their predecessors had been.<sup>16</sup> In fact, as one of the surveyors indicated, damage survey reports were usually limited to restoring streams to original channels rather than clearing debris to flood levels because the latter was felt to be impractical. An attempt was even made to underscore what

work OEP might declare ineligible.<sup>17</sup>

To ease relations with local communities further by explaining ineligible and eligible work in Tioga County, OEP requested that a special office at Wellsboro, Pa., be manned by three representatives of the Corps. That work began on 14 September. Much time was spent by officials at the district level in handling an understandably large volume of Congressional inquiries on the situation in Tioga County from Representative Joseph M. McDade of Pennsylvania's 10th District.

A further element of controversy was injected into the stream clearance mission when some members of the Pennsylvania Fish and Wildlife Commission criticized the manner in which the Corps cleaned up prize trout streams. Again, the issue centered around the use of heavy equipment. At a meeting with commission representatives on 29 August, SED Liaison Officer Eastburn vigorously defended the Engineers. Eastburn corrected the erroneous assumption that SED was responsible for and controlled all stream clearance projects. In fact he pointed out that local communities had accomplished most of these projects and politely suggested that the commission direct its efforts to them.<sup>18</sup> The two parties finally resolved their major differences through compromise.

As if guidelines, geography and local opinion were not enough, the stream clearance effort was jeopardized by the inexperience of Corps personnel assessing the damage. Colonel McElhenny felt the situation in Tioga County alone pointed up a deficiency in Corps disaster planning: not enough people were trained and qualified to do damage survey work.<sup>19</sup> Nor was the Towanda Area Office alone at fault. A civilian who served in the Sunbury Area Office felt the damage survey reports prepared by his office and the Lock Haven office "were very amateurish and as a result precipitated much criticism from OEP and local officials." Indeed, he concluded that the lack of experience by damage survey teams caused many of the most serious Congressional inquiries.<sup>20</sup> The lesson was clear: success in this important mission demanded more adequate preparation. At the same time, however, it was apparent that no

factor alone was responsible for the situation in Tioga County.

When debris removal was complete, Susquehanna District had let contracts for all types of debris totaling \$38.5 million. Of that, \$31.9 million was spent by area offices in Pennsylvania. Wilkes-Barre Area Office led the way with \$19.5 million. In New York, the Elmira Area Office expended approximately \$6.6 million on this program.

## MOBILE HOME PARK CONSTRUCTION

With thousands of people homeless in the wake of Tropical Storm Agnes -- most of them in Pennsylvania's Luzerne County -- temporary housing was a serious problem. At first emergency public shelters sufficed; but, for long-term community needs and individual peace of mind, other types of shelter were essential. It was not a question of staying in emergency quarters until the floodwaters receded and then returning home to clean up. Not when one's home was totally destroyed, washed from its foundations, or, at the very least, still standing but uninhabitable.

Following tradition, government turned to mobile homes to solve the housing problem. Though the Disaster Relief Act of 1970 provided for the use of "mobile homes or other readily fabricated buildings," it was clear to Pennsylvania state officials, in meetings with federal officials after Agnes, that "the mobile home was the only shelter system in the federal government's emergency disaster housing program."<sup>21</sup> The Office of Emergency Preparedness initially assigned the Department of Housing and Urban Development with the task of getting the mobile homes, establishing a system for assigning them to disaster victims, and installing them on mobile home park sites. In Pennsylvania, the Department of Community Affairs took on the responsibility of providing land for the group sites and preparing the sites. As noted in Chapter I above, the Corps of Engineers got involved on 5 July when General Groves signed an agreement with the state to prepare the mobile home sites. Pennsylvania turned to the Corps, according to officials of the Department of Community Affairs,

"because the Corps . . . [was] the only agency with the logistical capabilities to move quickly into an area and place under contract the large construction tasks needed in a disaster recovery operation."<sup>22</sup> At this point, HUD, the Pennsylvania Department of Community Affairs and the Corps of Engineers each had a role in the mobile home program. In New York, the state rather than the Corps of Engineers handled site preparation.

With disaster victims given the alternatives of living with friends or relatives, moving to a new community, placing a mobile home on an individual site, or returning home, it was extremely difficult to estimate group site needs.

HUD projections were continually undergoing revision as the Corps' mobile home mission proceeded. As in all other areas of what eventually became Susquehanna District missions, the majority of work centered in Luzerne County. At a meeting with OEP officials on 23 July, the district engineer agreed to construct 5000 trailer pads and design an additional 1000 pads as a contingency in Luzerne County. By 2 August, Wilkes-Barre area needs had been projected at 7250 mobile home pads; on the 6th, the total requirement for temporary housing of all kinds in Luzerne County was set at 13,500 units.

From the start, emphasis was placed on



completing site construction as fast as possible. People needed the housing and an early winter was feared. OEP Director George A. Lincoln set the pace on 12 July when he said there would be 5000 pads completed by the end of August.<sup>23</sup> OEP wanted all temporary housing placements made by 15 September.

General Groves told SED officials that North Atlantic Division and Susquehanna District "would stand or fall on whether we make that target."<sup>24</sup> Though the statement was probably an exaggeration, it indicated the priority attached to the mission. SED was required to make daily progress reports to the Chief's Office and NAD on the status of mobile home site construction and the number of pads turned over to HUD for actual placement of trailers.

In the early stages of the program, scenes of angry flood victims besieging government offices and officials with inquiries about delays in getting housing were common. Difficulties obtaining trailer site approval and moving trailers to the disaster area, combined with some administrative blunders, largely accounted for the flood victims' frustrations. Split responsibilities within the group site program added another dimension to the problem.

Geography presented difficulties at several sites supervised by the Wilkes-Barre Area Office. "Extensive quantities of rock were encountered on four sites, high water table was encountered on two others and previous landfill operations left another site unstable."<sup>25</sup> At Coal Brook, the latter site, concern over the presence of methane gas led to the use of ventilation tubes to prevent explosion. A one-to three-week lag between site completion and occupancy, due to delays in delivery and hook-up of units, at times jeopardized the program.

The Susquehanna District inevitably fell behind in its ambitious schedule, particularly in Luzerne County; but in the long run it hardly seemed to matter. On 5 September, for example, the district reported slippage on its completion dates while noting that HUD was having difficulty finding families to move into already finished units. The occupancy rate on some completed sites was only 40 percent. A

488-unit site planned in early August for Wilkes-Barre's Hollenback Park, a municipal golf course, was dropped on 8 September because of the reduced need for mobile homes in the area. A site under design for the Sunbury Area Office was later eliminated for the same reason. HUD even began to rent some mobile homes to contractors to house their personnel. On 14 September HUD revealed that three sites (721 pads) then under construction in Luzerne County were to be reclassified as "standby sites" for use only if additional mobile homes were needed. One of these sites, Valley View, cost \$991,000 to complete. Reasons given for the initial demand for trailers in group sites falling short include the establishment of individual sites, the use of travel trailers, the temporary repair program, and public displeasure with sites located in remote areas.<sup>26</sup>

The Corps of Engineers mobile home mission included responsibility for design which was contracted to local architect-engineering firms. They generally were asked to complete the design in a matter of days, a real challenge given the variety of areas proposed as group sites. According to an official in the Harrisburg Area Office, the designers, having been instructed to avoid creating "instant ghettos," set trailers at angles and planned curving roads to give "the feeling of suburbia instead of temporary construction."<sup>27</sup>

Mobile-home site contracts managed by the Susquehanna District initially provided for site preparation and distribution of water, electricity and sewage facilities. The mission was subsequently broadened. On 27 July, Chief Engineer Frederick J. Clarke announced that the Corps had been tasked to take over utility hook-up from HUD on group sites in Luzerne County. Although the order was rescinded three days later, the Corps remained ready to help if necessary. In fact General Groves instructed SED to provide whatever assistance HUD requested with its part of the trailer program.<sup>28</sup>

On 15 September, OEP tasked the Engineers to design a natural gas pipeline for the 180-pad Harvey Roer project in Luzerne County, as well as natural gas systems utilizing bulk propane for other group sites. The Corps accepted responsi-



bility for gas hook-ups at Harvey Roer on 2 October after the proposal had been offered and withdrawn, offered again and declined, and offered a third time, all within three days.<sup>29</sup>

Susquehanna District took on another responsibility when on 24 September District Engineer McElhenny entered into a letter agreement with the Pennsylvania Department of Community Affairs to contract for the installation of package sewage-treatment plants at mobile home sites too distant from existing sewage facilities. In fulfilling its mobile home assignment, the Corps was acting as contracting agent and manager for a significant phase of the federal disaster relief program. A major was placed in Harrisburg to serve as overall coordinator for mobile home site construction. It was district practice to assign an engineer officer as project engineer for each of the larger sites or several smaller sites.

Inspectors, whose job it was to assure contract compliance, coordinate changes, keep the contractor on schedule, maintain safety standards and document progress and problems, were as always a key to successful Corps performance. Captains from the Engineer Officers Advanced Course at Fort Belvoir and civilians on temporary duty or local-hire engineers performed these tasks.

The first and major phase of Susquehanna District's mobile home park construction mission was officially completed on 26 September when 6758 pads were reported finished on 62 sites statewide. Of those, 5456 pads were located on 29 sites in Luzerne County.

Until September, SED's involvement with mobile homes was limited to group sites; but on 1 September it was agreed, during the course of the daily staff meeting of Presidential Representative Frank A. Carlucci, that Susquehanna District would provide natural gas hook-ups to trailers on individual sites in the Wyoming Valley area. The need for such action was clear: as of 28 August HUD had placed 3500 trailers on individual sites but only 200 had received gas connections. The demand simply exceeded the capabilities of local contractors utilized by HUD.<sup>30</sup>

The designated contractor was Morrison-

Knudsen of Boise, Idaho, a firm soon to be heavily involved in the district's mini-repair program. Colonel McElhenny and his executive assistant met personally on 1 September with representatives of Morrison-Knudsen to work out details of a letter contract. The contract which called for the installation of natural gas to approximately 1000 individual trailers was awarded two days later.<sup>31</sup> McElhenny assigned Major James A. Brueggeman of the Missouri River Division to serve as contracting officer representative for this project.

The Morrison-Knudsen assignment involved excavating trenches to carry gas lines to individual trailer sites. The company organized their workers into nine-man teams giving them a capability of digging some 200 trenches per day. By 19 September, HUD had identified approximately 950 units for hook-up. On the 22nd, SED exercised the government's option and added another 1000 units to the contract.

Under the federal government's temporary housing program, trailers had been placed on lots alongside damaged homes or on other sites designated by the applicant. This presented some logistical problems. The task was complicated further by administrative errors: duplication on lists of trailers, assignment for gas hook-up of trailers actually set up to receive electricity or use oil heat, and assignment of trailers that didn't exist.<sup>32</sup>

The contractor was also delayed beyond the initial 30 September completion date by a special assignment at one of the group sites and by the added task of making conversions from liquid to propane gas. Morrison-Knudsen completed its work in mid-October, after connecting 1194 trailers at a unit cost of \$357.

The Corps' mission to develop group mobile home sites entered Phase II at the beginning of October. Divided into two parts, this phase included paving roads, putting in sidewalks, providing mail boxes and trash can holders, seeding, correcting drainage problems, and erecting prefabricated buildings and air-supported recreational facilities. Phase II construction was completed by 23 November. The plan to utilize air bubbles was ultimately scrapped because bids received for the work far exceeded government estimates.<sup>33</sup>

Support of HUD in the mobile home program for a time included performing necessary repairs to individual units. The Wilkes-Barre area engineer, Major Robert Cook, recommended assembling a team of Air Force engineers under control of his office to complete the work. A total of 41 men from Air Force "Red Horse" and "Prime Beef" units arrived in Wilkes-Barre between 23 and 30 August. By 25 October they had completed repairs to 1904 mobile homes on individual sites and 1533 on Corps-constructed group sites. The exercise was one more example of valuable support given the Corps by other military units.

Only four months after the Corps of Engineers completed construction of group site pads, William Wilcox, secretary of the Pennsylvania Department of Community Affairs, reached a sad conclusion. The experience in Pennsylvania after Agnes, in Wilcox's view, represented the "waterloo of the mobile home as far as using it for temporary housing in a major disaster."<sup>34</sup> His department estimated that the federal government had wasted \$10 million in the Wilkes-Barre area where only about 50 percent of the pads prepared by the Corps of Engineers were ever occupied by flood victims.<sup>35</sup> In fact, Pennsylvanians preferred individual trailer sites over group sites by a margin of nearly two to one.<sup>36</sup>

These assessments, however, gave SED officials little reason to feel their performance lacking. The attitude expressed by Secretary Wilcox and echoed by others actually reflected exasperation with the red tape involved, the difficulty in acquiring, transporting, and distributing mobile homes, the condition of the homes upon arrival and the public's preference for other housing. Amid such considerations, hardly a complaint was registered relating to the Corps' role in the mission.

Compared with the overall rate of completion on temporary housing units after Hurricane Camille in 1969, the record for all areas affected by Agnes was little short of phenomenal. More units were provided in a six-week period in 1972 than in a six-month period in 1969, and Susquehanna District clearly helped establish that record.

## MINI-REPAIR

The federal government undertook a unique program after Agnes that was designed to allow flood victims to move back in to their flood-damaged homes. The program, aptly named "mini-repair," envisioned minimal repairs below the second floor of eligible homes. The aim was to restore essential utilities, safety and security, and thereby to bolster the spirit of flood victims and stabilize badly damaged neighborhoods.

Because of the temporary nature of the program, repair costs on individual dwellings were limited to \$3000. For any group of homes, repairs were expected to average \$1500.



Mini-repair aimed at housing people fast. The process from damage estimate to award of contract and start of work was completed in five days, and contractors were given two weeks to complete the repairs. To further speed the program, houses were initially contracted in packages of five in order to involve small local contractors in the repairs.

Disaster victims were expected to carry out total rehabilitation with loans obtained from the Small Business Administration or other sources. Once again, the Office of Emergency Preparedness turned to the Corps of Engineers to implement the major part of the program. The task was assigned to the Engineers on 18 July, almost simultaneously with the activation

of the Susquehanna District.

In Pennsylvania, OEP focused mini-repair on Luzerne and Dauphin Counties (comprising the cities of Wilkes-Barre and Harrisburg), and in New York, on the Corning-Elmira area. HUD was responsible for identifying houses eligible for the program; the Corps of Engineers made damage estimates, established a scope of work, contracted for repairs and conducted inspections. Eligible work included repairs to plumbing, electrical, heating and hot water systems; outside doors and windows, broken stairs and buckled floors; and steam cleaning and extermination. Painting, wallpapering, plastering, air-conditioning repairs, replacement of appliances, and work on ceilings and interior



walls and floors, except when unsafe, were excluded.

Estimation and inspection engaged a large number of people during the height of the program. So much work was involved for the Wilkes-Barre Area Office by the end of August — 793 homes had been determined eligible and 571 were under contract — that more than 140 personnel were directly involved. At this point Wilkes-Barre's mini-repair staff itself resembled a large Corps of Engineers resident office. When the program first started in Wilkes-Barre, there was only a small staff headed by an Army captain. The Corps relied heavily on local architect-engineers and on non-commissioned officers from Air Force "Red Horse" construc-

tion units and active U.S. Army construction battalions for its estimators and inspectors.

Being an untried project in a disaster situation, the mini-repair program underwent changes and presented new problems as work progressed. Thus, on 26 August, Presidential Representative Frank Carlucci directed the Corps to begin including first floor wall insulation in mini-repair contracts where needed. The change came partly as a result of concern over lack of insulation voiced by the Chief of Engineers after a visit to mini-repair sites.<sup>37</sup> Insulation had been torn out and thrown away because of wetting in some 40 percent of the homes under repair. A harsh winter, it was feared, could again make them unlivable.



Experience with the program also resulted in a revised completion date — 31 October rather than 30 September. Uncertainty as to the scope of the program was a constant concern of the Corps as it was in most areas of disaster relief. Efficient performance required a feeling for where the program was going, particularly for how many units were expected to be repaired. Susquehanna District maintained up-to-date status reports on the program and, at the urging of Division Engineer Groves, kept a detailed chart of the mission's progress.<sup>38</sup>

In response to Colonel McElhenny's desire to pin down the magnitude of the Corps' mini-repair commitment in Wilkes-Barre, Frank Carlucci established an application deadline of 10 September.<sup>39</sup> There was no other way to end the program. Nor was there any other way the Corps could guarantee that house repairs would be complete before cold weather.

Initially the Elmira Area Office greatly underestimated public response to mini-repair. Expecting about 200 homes to be accepted for the program, the office was overwhelmed with requests. More than 1000 homes in New York's Chemung and Steuben Counties were ultimately repaired. Applications there had to be cut off on 29 August.

On 6 September Colonel McElhenny informed Carlucci that SED intended to bring outside contractors to Wilkes-Barre to assist in mini-repair. Carlucci agreed with McElhenny's assessment that the estimated 3000-4000 homes in Wilkes-Barre were beyond the capabilities of local contractors.<sup>40</sup> Negotiations with John Kohler, a Philadelphia mechanical contractor, were already underway, and discussions soon followed with officials of Morrison-Knudsen, Inc., the Idaho firm already performing mobile home gas hook-ups for the Engineers. By 14 September a final decision was announced: four outside contractors were to be used to hasten home repairs in the Wilkes-Barre area.

In addition to Morrison-Knudsen and Kohler, the Corps selected two other Philadelphia firms — Atlas Heating and Cooling and PBS, Inc. These firms accepted letter contracts covering 1900 homes in Luzerne County. Morrison-Knudsen took on 1000 houses and the other

three firms, 300 houses each. At the time the new contracts were issued, 15 local contractors were already in the process of repairing 1052 homes. To monitor the now rapidly expanding mini-repair activity in Wilkes-Barre, SED sent its operations officer, Major Thomas R. Bennett, on temporary assignment as project engineer.

Colonel McElhenny later attributed the success of Susquehanna District's mini-repair operations to the outside firms, particularly Morrison-Knudsen.<sup>41</sup> However, the decision to use non-area contractors came in the midst of a controversy in Wilkes-Barre involving local contractors and organized labor. One Wilkes-Barre contractor who wanted more work and disagreed with the district's assessment that he lacked capability got his Congressman to inquire why he wasn't getting the work. The answer was clear, as far as Colonel McElhenny was concerned. He had instructed the area engineer in Wilkes-Barre to keep local contractors in mini-repair so long as they performed satisfactorily, but the contractor in question had failed to complete any of the 70 homes already assigned.<sup>42</sup>

Wanting to do nothing to jeopardize the program and feeling there was still plenty of other work available for local contractors, Presidential Representative Carlucci upheld this Corps policy. To help quiet the ongoing controversy in Wilkes-Barre, assurances were given that Morrison-Knudsen, Kohler, Atlas and PBS would make every effort to employ local labor.

On 27 September McElhenny met with OEP's Francis X. Carney and urged a limited increase in the \$3000 ceiling for repairing individual homes. During the course of the work it had developed that some repairs originally estimated at less than \$3000 would cost more, and the district engineer wanted authority to go beyond the limit without securing OEP assent on each case. Two days later, after gaining approval from OEP officials in Washington, Carney authorized an increase to \$3500. The change was limited to houses "referred by HUD to the Corps ... which, upon investigation, were scoped and estimated to cost less than \$3000; but were later found to require repairs exceeding \$3000."<sup>43</sup>

On 6 October, McElhenny requested another increase in authority to go to \$4500 for 150 houses and to \$4000 in the case of 300 others. The units in question were mostly heavily damaged older homes in south Wilkes-Barre and Kingston; the work involved was generally electrical and mechanical. This time George M. Grace, assistant director for disaster programs of OEP, refused the request, suggesting that homes expected to exceed existing limits be rejected unless they were already occupied. In that case the excess work should be applied for under a loan from the Small Business Administration. However, Grace did approve a five percent overrun which was interpreted to mean that five percent of the houses in the program in Luzerne County (about 150) could exceed the \$3500 unit cost.

Susquehanna District often had to coordinate its programs with similar ones being undertaken at the state and local level. In the case of mini-repair, liaison was primarily required with the Wilkes-Barre Redevelopment Authority, a city agency whose own interim assistance program, directed at south Wilkes-Barre, was operated with funds obtained from HUD. Interim assistance resembled mini-repair except the former program included work above the first floor, considered its repairs to be permanent, and established no dollar limit.

Concern arose when the Susquehanna District realized that some homes contracted under interim assistance were also enrolled in mini-repair. An agreement was reached that the Redevelopment Authority would accept such units only after mini-repair work was completed. Frank Carlucci's office advised the victims involved in mini-repair that "there is nothing to be gained by switching to the Interim Housing program."<sup>44</sup> By establishing the value of both programs, Carlucci apparently averted a situation potentially disruptive to the overall housing effort.

Two major problems were encountered with the final inspection phase of mini-repair. One involved complaints that the inspectors were citing contractors for failure to complete work which was never intended to be included in the program. This situation required continual monitoring of the inspection process.

The second problem area, in the Wilkes-Barre area engineer's view, "caused more hard feelings between the Corps and the community than any other."<sup>45</sup> A rather heated controversy developed in early October over the city of Wilkes-Barre's insistence that city inspectors approve mini-repair work. The Corps' position was that "the city had no business worrying about temporary repairs," although it was entirely proper for them to require that heating and electrical work meet city codes.<sup>46</sup> After joint inspections were made between the 4th and 6th of October, Thomas R. Bennett concluded that the Corps could only seek to identify valid violations and correct them. After that, the city would have to take over.

During the course of its mini-repair mission the Corps of Engineers again encountered public confusion. There was a tendency to distrust federal officials and the information they provided. Also, people simply thought the government should do more. In this case, what needed to be stressed to them was that OEP had not only limited the type of repairs but also the amount of money that could be spent. A significant number of complaints pertained to the quality of carpentry work. Indeed, warping eventually occurred because door and window frames were still drying out and fairly low quality wood was used, but this was actually expected. Mini-repair, after all, was temporary: it attempted to give a homeowner a door where there was none, to provide the minimal security for occupying a home. Later, with the assistance of a loan from the Small Business Administration, the owner would correct initial imperfections, perhaps utilizing the same contractor originally hired by the Corps.

On the other hand, there were some obviously justifiable complaints in this as in other programs. Most arose from delays in construction — delays which usually resulted from extensive subcontracting and from poor geographical organization of work.<sup>47</sup> Complaints frequently resulted in letters of inquiry from members of Congress. After Tropical Storm Agnes, the pressure was unusually intense, in the opinion of the Wilkes-Barre Area Office, not only because of the severity of the damage but also because it was an election year. Nevertheless, it was Corps tradition to treat

such inquiries thoroughly. The Wilkes-Barre Area Office even had specially designated people in its mini-repair section to handle complaints. "Since the established image of the Corps of Engineers for responsiveness was at stake," officials later related, "... every effort was made to properly follow up on every inquiry."<sup>48</sup>

Plainly, Corps employees did not always find the limitations of their orders easy. As one estimator working out of the Elmira Area Office said at the time:

Sometimes you feel sorry for the people if their home is damaged and there is no way the home can be made livable for \$3000. It kind of tears you up that you can't do more for them.<sup>49</sup>

In some respects, however, homeowners made out quite well: many temporary repairs actually turned out to be permanent improvements. This was usually true in the case of repairs to heating and hot water systems and electrical repairs. For example, when it was discovered that damaged units were so old that replacement parts could not be found, scores of furnaces were replaced rather than repaired.<sup>50</sup>

A simultaneous mission that sought goals similar to mini-repair but on a smaller scale was dubbed "Power to the People." It was also another example of support given the Susquehanna District by military units, in this case, the Navy Seabees. Seabees on temporary duty from four Naval bases outside Pennsylvania were assisted by Navy personnel from the Philadelphia Navy Base and volunteer electricians in the Naval Reserves. Beginning 18 July they made inspections of heavily damaged homes in Luzerne County under the general

supervision of the Wilkes-Barre Area Office. Project chief for the program was Norm Brodoski, who was attached to the Philadelphia Navy Base and volunteered for service in SED.

Three times OEP extended the Power to the People program due to its success and the continued demand for restoration of power in the Wyoming Valley. By the time the program was completed on 15 October, power had been restored to 3100 homes.

By the time the mini-repair program was ended, the Susquehanna District had overseen the completion of 3965 units at a cost of about \$11.6 million. All but 105 of the units were located in the area of Wilkes-Barre, Corning and Elmira. A majority of the work was accomplished in just six weeks! Presidential representative Carlucci felt the effort represented an outstanding performance. "I can't overstate the role the Corps of Engineers and their contractors have played in providing much needed housing to the flood victims ... with their accomplishment of the Mini-Repair Program," Carlucci concluded.<sup>51</sup>

North Atlantic Division Engineer Groves termed mini-repair "the most successful by far" of the Corps of Engineers' projects after Tropical Storm Agnes. Why? "Because it brought us into contact with people more directly, and above all, it kept people in their homes."<sup>52</sup> Captain George M. Snow, a project engineer in the Elmira Area Office, believed the program had an important psychological effect on disaster victims at a time when they really needed a lift. "When you tell a family that you are going to assist them in repairing their home," Snow declared, "there are no words that can describe the relief and gratitude that appears on their faces."<sup>53</sup> Wilkes-Barre Area Engineer Cook put it very simply: "Mini-repair was a real humanitarian effort."<sup>54</sup>